EQ-7000

GRAPHIC EQUALIZER

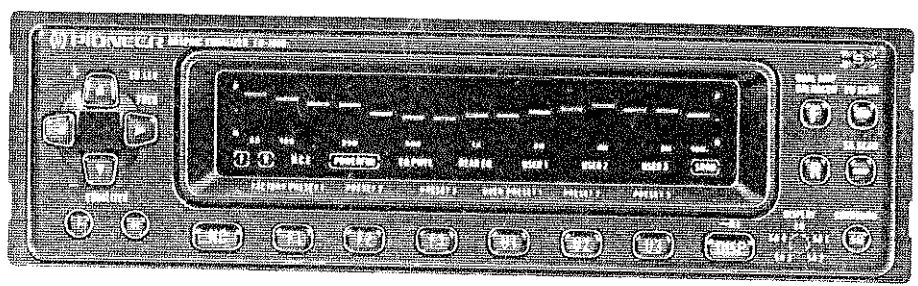
OWNER'S MANUAL

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.

شكرا لك على شرائك جهاز بايونير هذا. قبل محاولة تشغيله تاكد من قراءة هذا الدليل.



PIONEER®

The Art of Entertainment

ENGLISH

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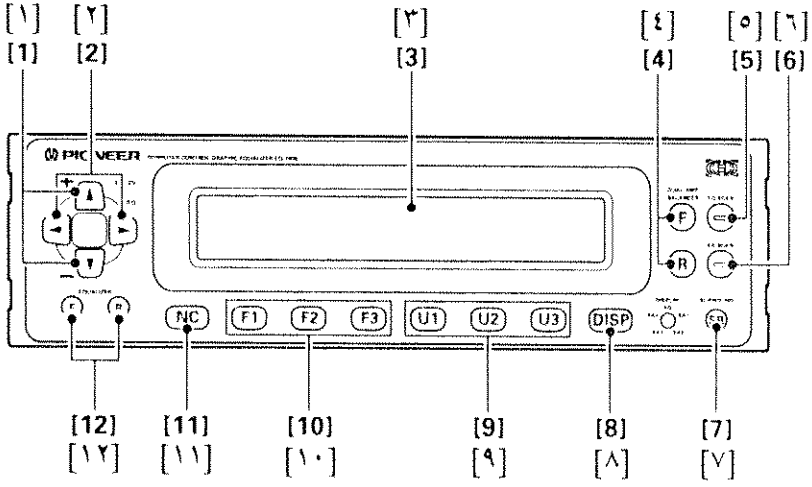

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Fig.1

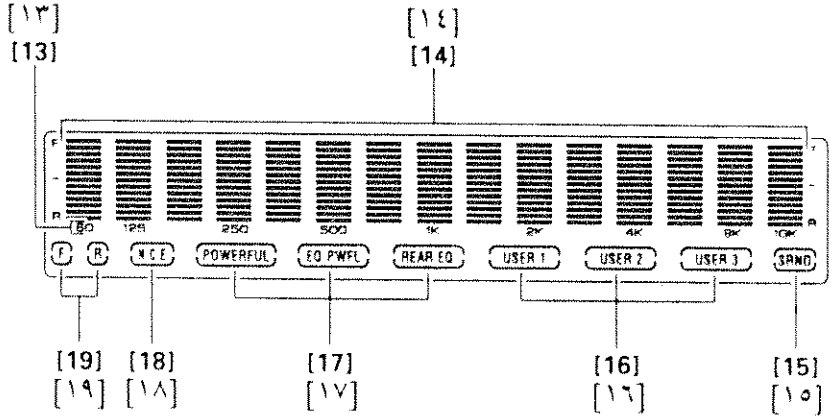

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Fig.2

Features

9-Frequency Electronic Graphic Equalizer
Level can be adjusted at each of the following frequencies: 60 Hz, 125 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz and 16 kHz to obtain high quality sound not possible with an ordinary tone control. Thus, you can adjust the system output to match your car's acoustic characteristics.

One-touch Recall of Equalizer Curves
Once an equalizer curve is set, it can be instantly recalled at the touch of a button (user preset curve). A set of factory preset curves are also available.

Equalizer scan function for sequential recall of 6 preset curves
A equalizer scan function allows one-touch sequential recall of 6 preset curves for easy selection of equalizer curves.

Display Selector
Switches between 4 types of spectrum analyzer displays which show changing audio levels and graphic equalizer for quick confirmation of equalizer curve.

Built-in Surround processor
A built-in surround function provides outstanding concert hall presence when a 2-amp, 4-speaker system is employed.

Spectrum Analyzer Scan
Shows 4 different spectrum analyzer displays (peak bound, symmetric, proportional, equalizer curves symmetric) for about five seconds each.

Nomenclature and Use

(Fig. 1)

[1] Level Up (+), Down (–) Buttons
Adjusts the graphic equalizer levels. Pressing the (+) button raises the level, while pressing the (–) button lowers the level. Adjustments are made after pressing the frequency select button to cause the selected frequency to flash. Only the frequency that is flashing can be adjusted.

[2] Frequency Select Button
Selects the frequency when adjusting the graphic equalizer level. Pressing the (◄) button increases the frequency, while pressing the (►) button decreases the frequency.

[3] Display

[4] Dual Amp Balancer
Adjusts the balance between the front and rear speakers. Pressing the (F) side of button [4] lowers the volume of the rear speakers until sound is emitted from the front speakers only. Pressing the (R) side of button [4] lowers the volume of the front speakers until sound is emitted from the rear speakers only.

[5] Equalizer Scan Button
Sequentially recalls 6 types of preset curves (at approximately 4-second intervals). Pressing the button again while any preset curve is recalled, selects that preset curve.

[6] Spectrum Analyzer Scan Button
Sequentially recalls the preset curves and 4 types of spectrum analyzers. Pressing the button again while the desired curve is recalled, cancels the spectrum analyzer scan and selects the curve on the display.

[7] Surround Button
Activates the surround function.
- The surround effect function is applicable for 2-amp, 4-speaker systems only and not for 2-speaker systems.

[8] Display Select Button
Selects the desired display. Each time the button is pressed, the display changes in the following sequence: GRAPHIC EQUALIZER → SPECTRUM ANALYZER (PEAK BOUND) → SPECTRUM ANALYZER (SYMMETRIC) → SPECTRUM ANALYZER (PROPORTIONAL) → SPECTRUM ANALYZER (EQUALIZER CURVES SYMMETRIC).

[9] User Preset Button
Selects the desired preset curve from the 3 types of equalizer curves assigned by the user by simply pressing the button.

[10] Original Preset Button
Selects the desired curve from the 3 types of original preset curves by simply pressing the button.

[11] Nuance Control Equalizer Button
Adjusts the level of the entire range of the original preset curve by pressing the (+) or (–) side of button [11] after this button is pressed.

[12] Equalizer Button
Turns the equalizer function ON/OFF for the front and rear speakers. Pressing the Ⓕ side of the button turns the equalizer function ON/OFF for the front speakers. Pressing the Ⓡ side of the button turns the equalizer function ON/OFF for the rear speakers.

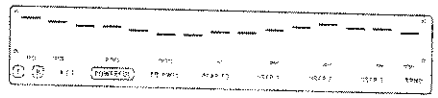
Reading the Displays

(Fig. 2)

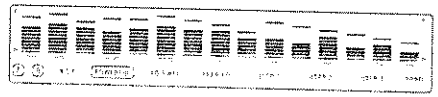
[13] Frequency Display

[14] Graphic Equalizer/Spectrum Analyzer/Dual Amp Balancer
Each time button [8] is pressed, the display changes in the following sequence as illustrated in A, B, C, D and E. Display F is selected by pressing button [4].

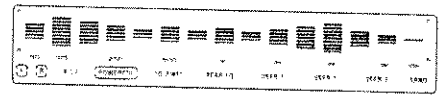
A: Graphic Equalizer Display
Levels are shown divided among 15 frequencies. The level above the center indicates the high level and the level below the center indicates the low level.



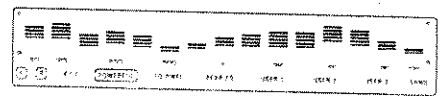
B: Spectrum Analyzer (Peak Bound) Display
The highest indicator is bound while the power levels of the 15 frequency division fluctuate.



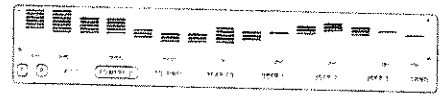
C: Spectrum Analyzer (Symmetric) Display
The power levels of the 15 frequency divisions are divided into the upper half and the lower half along the center on the display.



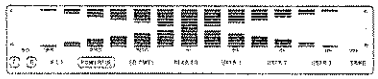
D: Spectrum Analyzer (Proportional) Display
The upper half of the bars of the power levels of the 15 frequency divisions are displayed.



E: Spectrum Analyzer (Equalizer Curves Symmetric) Display
The power levels of the 15 frequency divisions are divided into the upper half and the lower half along the center of the preset equalizer curve.



F: Dual Amp Balancer Display
The dual amp balancer display is selected by pressing button [4]. The ⧗ on the display indicates the volume of the front and rear speakers. When ▬ is displayed, sound is emitted from the front speakers only. When ▲ is displayed, sound is emitted from the rear speakers only.



[15] Surround Display
Appears and disappears on the display when button [7] is pressed.

[16] User Preset Display
Highlights the frame of the selected preset curve when the User Preset curve is selected.

[17] Original Preset Display
Highlights the frame of the selected preset curve when the original preset curve is selected.

[18] Nuance Control Equalizer Display
Adjusts the level of the entire range of the highlighted original preset curve after button [11] is pressed.

[19] Equalizer Display
The equalizer function is enabled for the speakers of the highlighted frame. The highlighted (F) indicates that the equalizer function is enabled for the front speakers. The highlighted (R) indicates that the equalizer function is enabled for the rear speakers.

Demo Mode
When the spectrum analyzer display is being used during tape playback, the display automatically switches to the demo mode when the unrecorded portion of a cassette tape is more than approximately 20 seconds. The spectrum analyzer display is restored when a recorded portion of the tape is reached.

Demo mode display

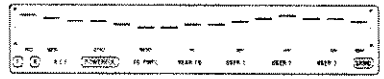
Using the Graphic Equalizer

Original Preset Curves

Select and press one of the buttons from buttons [10] to set the 3 types of original preset curves as shown below.

(F1) : POWERFUL
(F2) : EQ.PWFL
(F3) : REAR.EQ

PWFL: Powerful Curve
Enhances the low and high ranges to produce a powerful curve.



EQPW: Equalizer Powerful Curve
Compensates for the frequency characteristics inside the vehicle while enhancing the low and high ranges to produce a powerful sound.

R.EQ: Rear Speakers Equalizer Curve
Compensates for the frequency characteristics inside the vehicle to produce the equivalent of a flat curve (in most vehicles).

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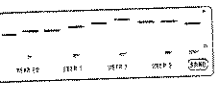

Powerful Curve

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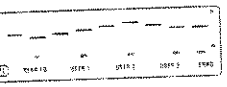

kers Equalizer Curve

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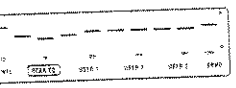

Setting Equalizer Curves

1. Press the frequency select button [2] and adjust to the desired frequency (level indicator blinks on the display). Pressing the (►) button increases the frequency, while pressing the (◄) button decreases the frequency.
2. Use the level up (+)/down (–) buttons [1] to set the frequency to the desired level.

- Repeat steps 1 and 2 to adjust the other frequencies.
- Original preset curves based on a factory preset curve by first calling the desired factory preset curve.
- The display will return to the previous screen prior to adjustment after approximately 8 seconds following the completion of the level adjustment.

Memorizing Equalizer Curves

3. Select and continuously press one of the buttons from buttons [9] for approximately 2 seconds after an equalizer curve is created. A beep will sound to confirm that an equalizer curve has been stored in memory.

- The procedure described above can be used to create and store up to 3 equalizer curves.

Nuance Control Equalizer

The level of the entire range of the original preset curve can be adjusted.

1. Select one of the buttons from buttons [10] to select the original preset curve.
2. Press button [11] to highlight the frame of the nuance control equalizer. The nuance control display will appear.

3. Adjust the equalizer levels by pressing the (+) button and the (–) button of buttons [1]. Pressing the (+) button raises the level, while pressing the (–) button lowers the level.
4. The equalizer curve will be set and the display will return to the previous screen prior to adjustment after the completion of the level adjustment when button [11] is pressed.

Surround Function

The surround function provides a powerful concert hall ambience resembling the pleasures derived from sitting in the center of a concert hall or sound studio.

1. Adjust the volume of the front and rear speakers to the same level with button [4].
2. Press the surround button [7].
3. The volume of the rear speakers may increase with certain sources. In this case, reduce the volume of the rear speakers with button [4].

- The surround effect function is applicable for 2-amp, 4-speaker systems only and not for 2-speaker systems.
- The surround effect function is not applicable for monaural sources.
- The left/right volume balance of the rear speakers cannot be adjusted while the surround function is being used.
- The effectiveness of the surround function depends upon the source.

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Connecting the Units

Note:

- *This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.*
- *To avoid shorts in the electrical system, be sure to disconnect the battery ⊖ cable before beginning installation.*
- *Check whether installation and wiring have been completed correctly. Replace the removed car components, then connect the end of the cable to the negative ⊖ terminal of the battery.*
- *Refer to the owner's manual for details on connecting the various cords of the Head unit and power amp, then make connections correctly.*
- *Secure the wiring with cable clamps or wrap adhesive tape. To protect the wiring, wrap adhesive tape around them where they lie against metal parts.*
- *Route and secure all wiring so it cannot touch any moving parts, such as the gear shift, handbrake, and seat rails. Do not route wiring in places that get hot, such as near the heater outlet. If the insulation of the wiring melts or gets torn, there is a danger of the wiring short-circuiting to the vehicle body.*
- *Don't pass the orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation can cause a very dangerous short.*
- *Do not shorten any leads. If you do, the protection circuit may fail to work when it should.*
- *Never feed power to other equipment by cutting the insulation of the power supply lead of the unit and tapping into the lead. The current capacity of the lead will be exceeded, causing over heating.*
- *When replacing fuses, be sure to use only fuse of the rating prescribed on the fuses holder.*

Connection Diagram

Example 1: 4 speaker system with Head unit (with amplifier input).

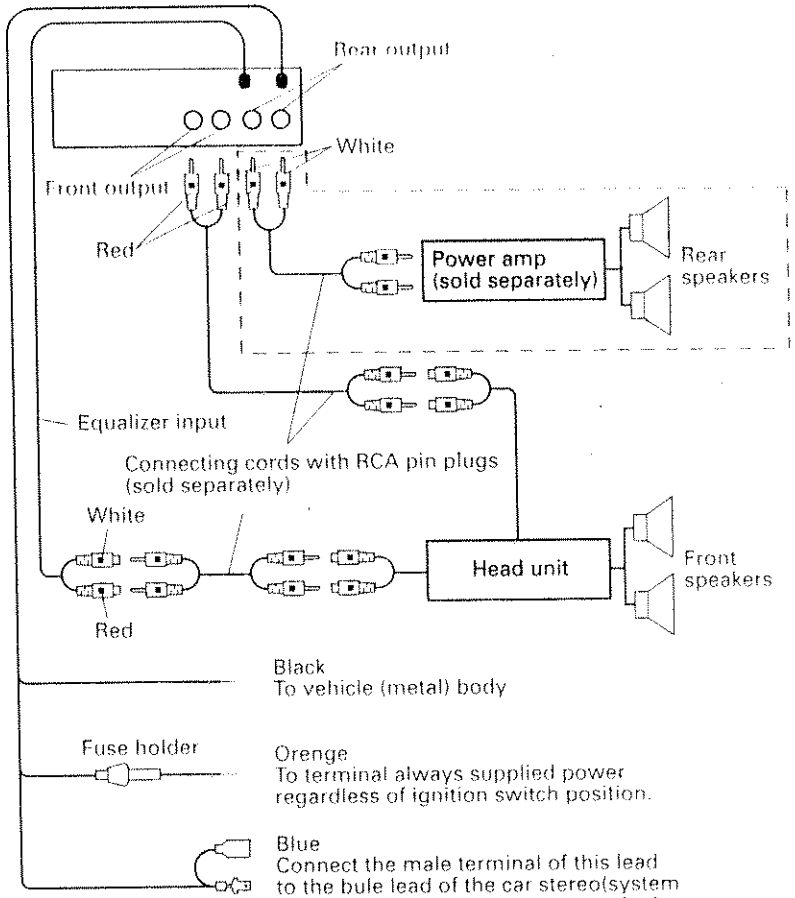

Fig.3

Example 2: 4 speaker system with optional amplifier.

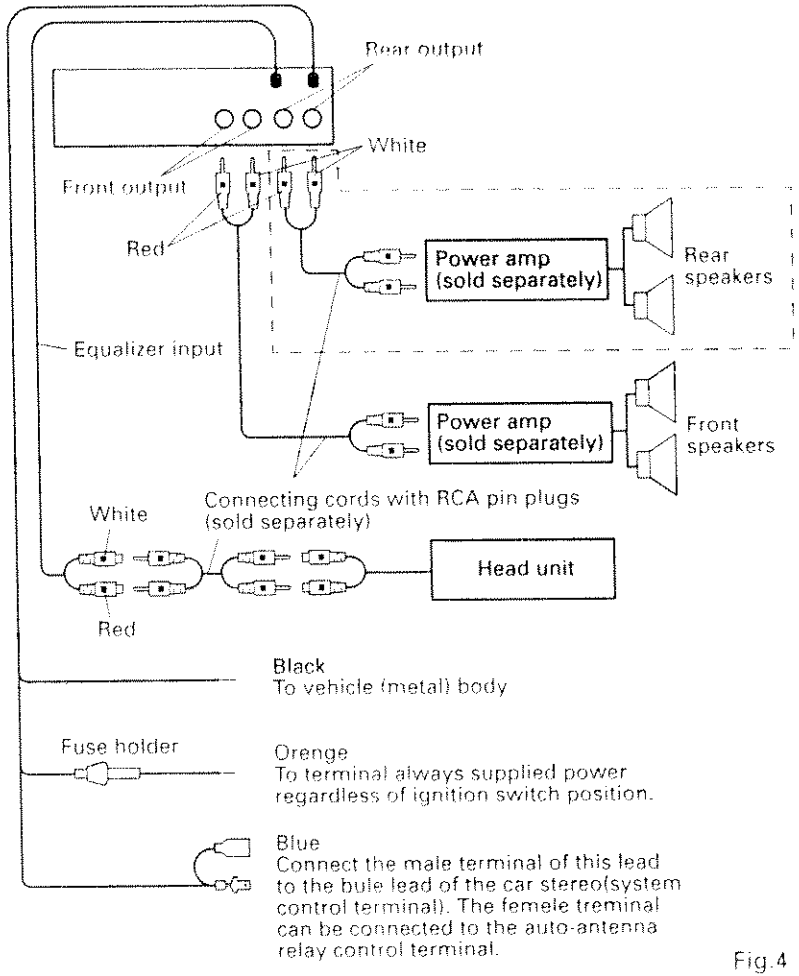

Fig.4

Installation

Note:

- *Before finally installing the unit, connect the wiring temporarily and make sure it is all corrected up properly and the unit and the system work properly.*
- *Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.*
- *Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.*
- *Install the unit where it does not get in the drive's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.*

Fastening the unit to the factory radio mounting bracket. (Fig.5) (Fig.6)

1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side. Use either truss screws (5 × 8 mm) or flush surface screws (5 × 9 mm), depending on the shape of the screw holes in the bracket.
2. Screw
3. Factory radio mounting bracket
4. Dashboard or Console

Fig.5

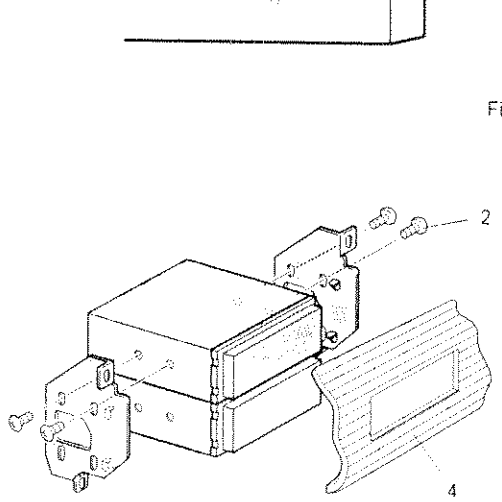

Fig.6

Precaution

- *Set airconditi*
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- *Use this funct*
- *If using two a*
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Precautions

- *Set airconditioning or heating for suitable temperature because there may be extreme changes in temperature during summer or winter.*
- *Use this function when driving if outside noise is too loud.*
- *If using two amplifiers, do not listen at high volumes for a long period of time when idling or when the engine is not running.*

In case of trouble
When the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station.
In the United States, please call 1-800-421-1404 for product information or your nearest service center or 1-800-228-7221 for information on parts.

Specifications

Power source	14.4 V DC (10.8 — 15.6 V allowable)
Grounding system	Negative type
Dimensions (chassis)	178 (W) × 50 (H) × 137 (D) mm
(nose)	170 (W) × 46 (H) × 13 (D) mm
Weight	0.8 kg
Equalization frequency	60 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2kHz, 4 kHz, 8 kHz, 16 kHz
Gain	–0 dB
Equalization range	±12 dB
Frequency response	20 — 20,000 Hz (–1 dB)
Distortion	0.03% (1 kHz, 70 mV)
Signal-to-noise ratio	102 dB (IEC-A network)
Input impedance	22 kΩ
output impedance	1 kΩ
Max output level	1.9 V/1 kHz, 1% THD

Note:
Specifications and the design are subject to possible modification without notice due to improvements.